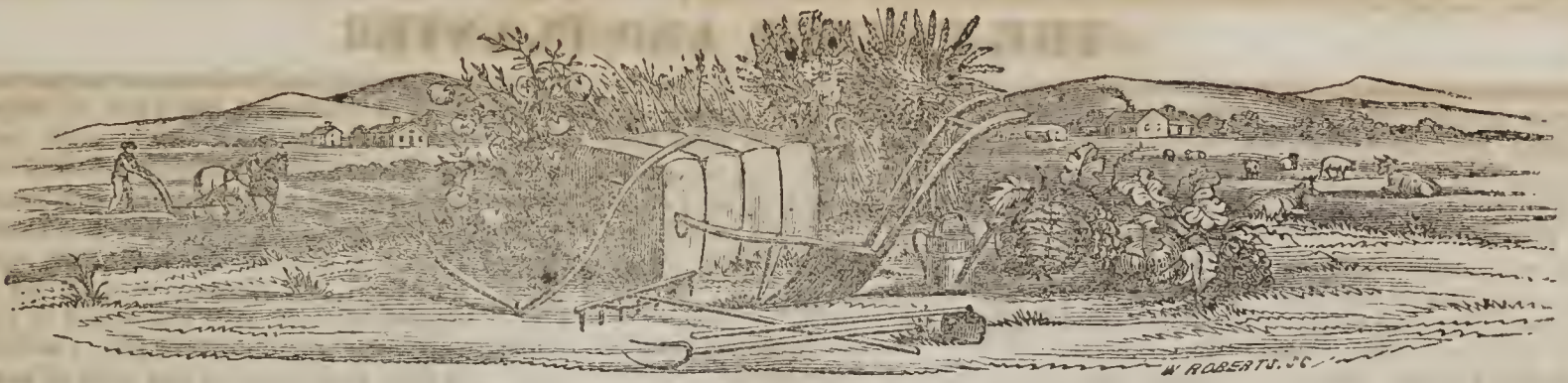


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FARMER AND PLANTER.

DEVOTED TO AGRICULTURE, HORTICULTURE, MECHANICS, DOMESTIC AND RURAL ECONOMY.

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From the Working Farmer.

Thorough Draining, Sub-soil Plowing, Etc.

At a late meeting of the New York Farmers' Club, we had an opportunity of hearing the views of a number of practical farmers on the above subject. We were more than ever convinced of the great utility of such meetings.

The views of theorists are fairly tested when subjected to the investigations and objections of practical men, while the want of tact for the ready application of philosophical truths is compensated for by the suggestions of theorists, and thus theory and practice lend their mutual aid in arriving at not only the truths of natural laws, but of their economical application to practice. The following were among the remarks made by the members present.

In relation to draining, it was observed that the advantage arising from its practice was not confined to the mere mechanical operation of getting rid of surplus water from the soil, but the improved results now so well known to arise from under-draining, were in part attributable to the action of the atmos-

phere on the ingredients of the soil.—Land thoroughly under-drained and sub-soil plowed may be said to be so conditioned as to avail of nature's laws more economically than when such practices have not been resorted to.

Viewing the soil as the debris of rocks, it should be understood that the different alkalies and other substances resident in the particles are not always in condition to be dissolved by water or used by plants, but if the atmosphere be brought into immediate contact with these particles, changes go on which render all the surfaces susceptible of being rendered soluble by atmospheric and consequent chemical changes. Thus from feldspar potash may be liberated, and by its influence silex may be rendered soluble.—Sulphurets which are unfavorable to vegetable growth, may be changed to sulphates; minute surfaces coated with alumina may absorb ammonia from the atmosphere and retain it for the use of plants, and increased quantities of heat abstracted from the circulating atmosphere are stored up, and thus the genial influences of increased temperature, with the supply of organic constituents derived from the atmosphere, are placed at the disposal of the anticipated crop.—Should inert vegetable matter be disseminated in the soil, these circumstances are favorable to its decomposition, and nature's great store-house, the atmospheric ocean, is not debarred entrance by putrid water, as in undrained soils, nor does under-draining tend to render the soil less retentive of a proper amount of moisture. On the contrary, well disintegrated soils will receive at all times, by condensation from the atmosphere, a fair supply of moisture fully charged with the organic, and capable of dissolving the inorganic constituents for the use of plants.

After soils have been under-drained and sub-soiled, they rapidly increase in carbonaceous constituents, and a greater depth of arable surface is the result, whilst the ease with which roots can percolate to increased depths, enables them to bring up the inorganic constituents of the soil, and by their decay to de-

posite it nearer the surface. The entrance of the atmosphere at greater depths, assists in the decomposition of roots so deposited in the sub-soil, rendering it rapidly similar in quality to the surface soil, by increasing its organic matter.

It was urged that sub-soiled meadows never run out; that those plants which tiller, such as the grain crops, cereals, &c., when grown in land not deeply disintegrated, require thick sowing, because the termini of their roots, when brought into contact with a cold and rigid sub-soil, would become diseased, and would therefore cease to throw out side shoots and form tiller or duplicate plants. In deeply disintegrated soils this difficulty is avoided. Many instances were given of fields, part of which were sub-soiled, defying droughts in those parts. It was stated that the roots of the corn stalk would average many feet in length, and its broad hardy leaf had never been known to roll or curl, while the roots had a fair opportunity to roam in a free, deep soil. The increased yield from sub-soiling was freely admitted by all. It was urged by one member, that fruit trees, grape vines, &c., grown on sub-soiled land, would bear fruits of superior flavor; the aroma, as well as all their proximate principles, being mainly dependent upon a ready supply of the necessary inorganic constituents.

In reply to some remarks relative to the downward filtration of soluble portions of manure, it was urged that a fair proportion of alumina and of carbonaceous matters resulting from the decay of vegetable fibre, would never allow any of the soluble constituents of plants to filter downward beyond the reach of the roots of growing crops. That if the brown fluids of the barn-yard should be poured on the top of a barrel filled with such soil, the water running out from the bottom would be found to be limpid and inodorous, all the parts valuable for the use of plants would be retained, and that if this were not true, water drawn from wells on properly cultivated farms could not be drunk.

It was also stated that water issuing

from the mouths of under drains never contained ammonia, the whole of that substance being arrested by the soil during the downward filtration of the water. Whereas rains falling on the surface of the soil disintegrated but to slight depth, might pass over the surface running away to the river, thence to the ocean, carrying with it only the ammonia received from the atmosphere, but also the soluble materials it might meet with during its passage over the surface soil. All admitted that sub-soiled lands might be fertilized and kept in heart at less cost than those not so treated. The new sub-soil plow sent to the Institute by Mr. Geo. H. Barr, was exhibited to the members, and its advantages were fully explained. The amount of power necessary to move this instrument is so much less than that required by any of its predecessors, that the cost of sub-soiling is no longer a serious objection to its adoption.

Specimens of draining tile were also exhibited. These are now manufactured by many persons in the vicinity of New York, at prices varying from eight to fifteen dollars per thousand, each tile being fifteen inches long. The use of the Upton draining tool, by which ditches of but a few inches in width may be dug to any required depth, was fully explained. The superiority of the tile over stone drains, both as to durability and economy, was made too evident to be doubted.

The proper depth for drains formed also a part of the discussion. It was remarked that but a small portion of water entered the under-drains during its downward course, but that when the lower pan became filled with water, and it rose even with the lower side of the drain, it would then enter and run off, and hence that drains of five feet depth and eighty feet apart, would be generally found to equal those of three feet depth and twenty feet apart; for the water occupying the lower pan could not rise by accumulation nearer the surface than three feet, at half way between two drains eighty feet asunder, and it would be found to average an approach of three feet at ten feet either side of the centre point between the two drains; thus to secure the same conditions with drains of but three feet in depth, they would require to be but twenty feet apart.

Almost every question which could suggest itself in relation to sub-soil plowing and under-draining was asked, and satisfactorily answered. Indeed, we have never heard these subjects more fully and fairly treated. We give above, our recollections of what transpired, and hope it may be sufficient to induce our farmers to accept the invitation by the American Institute, for them to attend the meetings of this club.

An interesting feature of this club is, the gratuitous distribution of scions, seeds, &c. At the proper seasons those members having superior fruits, bring grafts for distribution, and many thousands of worthless trees in the vicinity of New York have, in consequence, been

rendered profitable to the owners, besides supplying our markets with fruit of improved sorts. No applicant for scions ever leaves unsupplied, and thus the finer sorts of fruits may be indefinitely multiplied. The *Alfalfa Clover*, received from Capt. Glynn, U. S. N., is now being distributed.

Pepper.

ONE of the most useful vegetables in hygiene is red pepper. Especially in warm countries has it been considered invaluable as a stimulant and auxiliary in digestion. Among the French and Spanish races it is used in the largest quantities, and they invariably enjoy most excellent health. Of late, particularly since the cholera visited our state, our planters have begun to discover the advantages of this vegetable, and mingle large quantities of it with the food of their negroes. Considerable attention has been drawn to the selection and cultivation of the best kinds of pepper. Among those who have appreciated the importance of this vegetable is that admirable planter and exceedingly practical gentleman, Col. Maunsel White, the proprietor of "Deer Range," commonly known as the model sugar plantation. Col. White has introduced the celebrated tobacco red pepper, the very strongest of all peppers, of which he has cultivated a large quantity with the view of supplying his neighbors, and diffusing it through the state. The tobacco pepper yields a small red pod less than an inch in length, and longitudinal in shape. It is exceedingly hot, and a small quantity of it is sufficient to season a large dish of any food. Owing to its oleaginous character, Col. White found it impossible to preserve it by drying; but by pouring strong vinegar on it after boiling, he has made a sauce or pepper decoction of it, which possesses in a most concentrated form all the qualities of the vegetable. A single drop of this sauce will flavor a whole plate of soup or other food. The use of a decoction like this, particularly in preparing the food for laboring persons, would be found exceedingly beneficial in a relaxing climate like this. Col. White has not had a single case of cholera among his large gang of negroes since that disease appeared in the south. He attributes this to the free use of this valuable agent.—*N. O. Delta.*

Female Education.

Shame on us, that we, who boast of having raised woman, in the nineteenth century, to the position in life which she ought to hold, so educate her that not one of her powers, physical or mental, can ever attain a full and healthy action.—Better go back to the days of our great grandmother, and be content with Dilworth's spelling-book, and Assembly's catechism;—nay, better go to far earlier days, when neither catechism nor spelling-book detained the damsel from the distaff or the loom, than rear for the coming generation a race of nervous wives and sickly mothers.

When the boy runs merrily after his

ball, or chases in the race, or leaps over the bound, the girl must walk demurely in the garden, because, forsooth, running and leaping and jumping are ungraceful in the girl. When the boy runs freely over the hills or through the woods in summer, or coasts down the hill or skates merrily over the pond in the winter, the girl, untrusting, unbefitted, walks pensively by the side of her teacher, to the village, or takes a two mile airing in a sleigh once a week. She never pitches the quoit, never throws the ball, never slides down the hill, never roams through the woods, because, save the mark! these are deemed unfeminine.—In fact she never thoroughly exercises her body at all, and in consequence soon becomes unable to endure any kind of physical fatigue.

"Fit only for boys," said the principal of a large female institute to me the other day when I remonstrated with him on the importance of this and other like exercises for the girls. For boys, indeed! And has not a girl a physical system to be developed and matured and invigorated? Has she not fatigue to bear, obstacles to encounter, hinderances to overcome, enterprises to carry out, duties to discharge? Has she not the burden of life to carry, and its toilsome road to travel by herself? In her own sphere does she not require, through life, all the energy, strength and endurance of which her system shall be capable? It matters not whether she is to live in the midst of fashion, or to move quietly in the circles of country life, or to find her lot on missionary ground, or to struggle against unforeseen adversity,—all that can be made of her during her years of education, physically, morally, and intellectually, she will need. To every woman, whatever situation she may occupy, life is a *fact*, stubborn, earnest, real, to be shaped and moulded by her own efforts, or to be borne and endured by her own fortitude. Happy is she who is prepared for it, not by her own despairing efforts in after life, but by the judicious, careful, and thorough discipline of early education.—*N. Y. Com. Advertiser.*

Poisonous Vessels.—Vessels of copper often give rise to poisoning. Though the metal undergoes but little change in a dry atmosphere, it is rusted if moisture be present, and its surface becomes covered with a green substance—carbonate or protoxide of copper, a poisonous compound. It has sometimes happened that a mother has, for want of knowledge, poisoned her family. Sourkrout, when permitted to stand sometime in a copper vessel, has produced death in a few hours. Cooks sometimes permit pickles to remain in copper vessels, that they may acquire a rich green color, which they do by absorbing poison. Families have often been thrown into disease by eating such dainties, and may have died in some instances without suspecting the cause.

Great Yield of Cotton in Pickens District.

At its Anniversary meeting, in 1849, a premium was offered by the Pendleton Farmers' Society, for the largest product of cotton on one acre of up-land. At the fall meeting 1850, the crop being not yet gathered, further time was allowed the competitors to make their report. Below will be seen the report of Mr. S. E. Maxwell, which he has recently laid before the Society:

REPORT.

The lot (red land on a stiff subsoil) was laid out in form a parallelogram, certified by M. S. Mackey, surveyor, to contain just one acre.

Preparation. February 4th. Subsoiled with the Broyles subsoil plow, and on the day following, cross plowed with the same. 19th. run off furrows four and-a-half feet apart with the common shovel plow. Manured in this furrow with stable manure—quantity not noted, not very heavy, however. Covered the manure by running on each side and ridged on it.

April 13th. Opened the ridges with a coulter, in the furrow of which the seed, the Petit Gulf variety, were thinly drilled, and covered with a board, fixed in the usual way, on the foot of the plow stock.

May 13th. Plowed the first time with a sweep or buzzard plow. The hoes followed and thinned out to one stalk, twenty inches in the drill.

June 5th. Plowed the second time with the same plow, the hoes following.

27th July. The ground was again hoed and drawn well up to the plants. (In our opinion, an error.—Eds.)

August 8th. The cotton was topped, and in due time such suckers as made their appearance were taken off.

September 5th.	First picking,	yield	51½ lbs.
" 27th.	2nd "	"	546 "
October 7th.	3d. "	"	499 "
" 23d.	4th. "	"	655 "
November 5th.	5th. "	"	344 "
December 7th.	6th. "	"	361 "
January 1st.	7th. "	"	71½ "

Total product..... 2523 "

It was believed by Mr. E. McCrary, the overseer, and others, that some 40 or 50 pounds more, of indifferent cotton, might have been gathered at the time the stalks were cut, in preparing for the following crop.

The overseer will, if required by the Society, make an affidavit to the above stated facts.

Mr. Maxwell informs us, whilst carrying on the above experiment, he made one to ascertain the relative yield from similar land manured with cotton seed and stable manure, about an equal quantity of each to the drill. The stable manure made from litter and the excrements of horses fed on oats only. The same number of rows was manured with each kind of manure, and resulted as follows:

Rows manured with cotton seed yielded 171 lbs.

" " " stable manure..... 245 "

making the very material difference of 74 lbs.; and probably a much greater one than would be

found in a similar experiment further south, where, owing to the prolonged season, the heat and early manuring effects of the stable manure might not be so important. Better manure your *Wheat*, in the up-country especially, with cotton seed, the superior beneficial effects of which we have often times experienced. Our neighbors will recollect the present year's yield of the old field we were so much laughed at for enclosing two years since. To the subsoil plow and from ten to sixteen bushels of cotton seed, with twice plowing and rolling the seed in, may be given the credit for what that field has produced.

Mr. Maxwell also informs us he has made, the present season, 56½ bushels of wheat on 3½ acres of up-land, which is 16 bushels and a fraction to the acre. On the ground stood 143 fruit trees. There were also three guard ditches running through it. This land has been in cultivation for fifteen consecutive years. It was subsoiled, and manured with about ten bushels of cotton seed per acre, plowed in with the wheat, then heavily brushed.

My Flowers.

LADIES are often disheartened in the management of their gardens by attempting too much. When unable to purchase new and expensive plants, or rear the tenderer ones, they are disposed to give up every thing, and neglect an interesting occupation, because they fancy nothing can be done without money and a good gardener. Now this is a great mistake. A lady may effect much without any assistance if she will but believe that "common" flowers and plants, as they are called, are well worth looking at when tastefully arranged and carefully attended to. A "good gardener" certainly insures a greater variety of flowers, and they are of course finer than those nursed by an inexperienced hand; but you have not the same pleasure in your little kingdom when there is some one who knows and does every thing there better than yourself. A lady with a good gardener begins cheerily at first, but in a year or two it is all over. She walks round the glowing borders, but her interest is all gone. To enjoy your garden thoroughly you must say, with Queen Elizabeth, "I will have but one mistress here, and no master." Most ladies, however small their means, may occasionally employ a laborer to do some of the rougher work, such as digging or rooting up a tree; and if they can but be satisfied with a less choice variety than their richer friends, I am sure the effect produced may be quite as good. I have often turned away from beds full of flowers, with names unheard of before, and have said: "after all, give me the cottage flowers—the rose, the honey-suckle,

the sweet-pea, and mignonette—they are sweeter and prettier than anything I see here;" and others have said so too.—These truly home-breathing flowers, connected too with our earliest years and sweetest recollections, should never be undervalued, their fragrance is unequalled, and their beauty can never be surpassed.

I do not think the ivy is sufficiently valued as an ornament to the garden. Its rapid growth makes it invaluable where large buildings or walls unfit for fruit trees require to be covered; but it is equally useful as an embellishment among shrubs, particularly those which shed their leaves in winter. The dead stem of a tree, with its boughs left on a foot or two in length, clothed with ivy, is a beautiful object, standing in quiet stateliness among the lighter beauties of the shrubbery, with its dark rich mass of foliage growing richer and handsomer, as its neighbors sicken and die. When I first saw an ivy-tree I was struck with its beauty and solemnity of look: it gave an appearance of age to the garden, which is also an advantage. Any stump or rough pieces of wood nailed strongly together will do to support this beautiful climber, which wraps itself thickly round its prop, and then hangs in wavering masses, covered with its starry flowers, on every side. A lady may easily encourage the Irish ivy, which is the richest and quickest growing kind. Cuttings planted in the fall or spring will take, and shoot up rapidly; and I have known them, when ignorantly planted with their heads downward, spring up as merrily as if all was well. If you can find a rooted plant some feet in height, so much the better; tie or nail it closely to its support till it has fixed itself, and the desired effect is of course sooner obtained. Never let ivy climb round a thriving tree, it clasps so tightly that the wood cannot expand, and disease and death will ensue. It thrives equally well on living and dead wood, needs no attention except to fix it up when loosened by the wind or other violence, and is the most beautiful, graceful, and effectual screen that a garden can possess.

Rustic baskets, supported on wooden feet, look beautiful when covered with Irish ivy. During the winter they are ornamental in themselves; and when filled with geraniums and other flowers, with the tendrils running over and concealing the pots, the effect is perfect.—These frames may very easily be made

as they are not intended to hold soil. A few crossed sticks nailed to a piece of board, the shape and size you wish, is quite sufficient, the ivy will soon hide it all and form a green and beautiful basket. Whenever you wish a shrub removed, see if you cannot make it useful in this way: head down three or four of the stems to a proper height, and fix a basket upon them; cut away all the rest and as the leaves spring from the standing stems, keep cutting them off, they will soon cease to trouble you. In the earlier stages of ivy-plants, a crimson or white rose blooming amongst its dark leaves has a lovely effect; but when it becomes thick and bushy the rose tree had better be removed elsewhere. Ivy forms a beautiful kind of carpet under trees where grass does not grow; it runs and spreads and seems like a joyous spirit to revel in its own light-heartedness.

By simple means, such as these, the eye and hand of taste may perform wonders without expense and with little time and trouble. The ivy flourishes everywhere,—evergreens do well in almost all situations,—violets and the star-like periwinkle decorate an awkward bank; an unsightly hedge may be enlivened with scarlet-runners, nasturtiums, and convolvulus, so that few gardens may not be made to smile, even under the greatest disadvantages. Ivy will help you here; let it creep about and cluster where it likes; it beautifies every thing it clings to.

A neatly-mown lawn with an ivy basket or two, a trellised porch or veranda, waving with roses, honey-suckle, and jasmine, a wall clothed with creeping plants, or a vine, or any favorite ivy, with an invaluable Virginia creeper for "winter-wear," a few beds of well-chosen annuals and perennials, neatly kept and cared for, a few judiciously-placed flowering shrubs and evergreens, are quite enough to make the country parsonage and cottage residence gay and delightful, both to the eye and heart. Surely all ladies may accomplish this! How much of the enjoyment of a happy domestic country house springs from its garden! What a tale it may tell, in its silent sweetness, of all that is passing within! It "discourses eloquent music." There are the husband's apple and pear trees, twined by the wife's sweet clematis; his cabbage-beds fringed with her pinks and pansies; the tool-house wreathed with roses; his rougher labors adorned by her gayer fancy—all speaking loudly of the happy union of their hearts and tastes.

Let us foster as much as possible the love of gardening, for it involves that holy feeling, the love of home.—*Gardner.*

The Culture and Preservation of the Sweet Potato.

THE following paper was read about a year since before the Winyaw and All-Saints Agricultural Society, S. C., by Dr. JAMES R. SPARKMAN, and contains an interesting historical sketch of this root, the latitudes in which it may be grown, the characteristics of soil in which each kind succeeds best, the most suitable manures and the best manner of applying them; the culture, productiveness, varieties, and mode of keeping. The report is not only able but complete, and it would be too little to say we are glad of the opportunity to publish it, we do it rather with something like pride:

"The Committee appointed at the last anniversary meeting of this Society to consider and report 'on the best mode of culture and preservation of the Sweet Potato,' have endeavored to obtain practical information from the most experienced and successful planters of this State, and with the view of comparison as to results, have also extended their inquiries to most of the Atlantic, Middle, and Western States.

Much interesting matter has been obtained orally, by correspondences, and by reference to various agricultural periodicals, which your committee find it difficult to condense within the ordinary limits of a report. They have endeavored, however, touching matters of general interest connected with their investigations, to be clear, concise and practical.

The convolvulus latatas, or sweet potato, may be traced back to the 15th century. Mention is made of it by Gerarde, and allusion by Shakspeare, may be found in his "Merry Wives of Windsor," act 5th, scene 5th, and also in "Troilus and Cressida, act v. scene 2d. (See Exp. notes, in Boston edition, by Hilliard, Gray & Co. 1836.)

Prof. Smee, says, "about the year 1600, and for some time after, the convolvulus potato is spoken of as the common potato, and our present potato (the Irish) is noticed as the new potato from Virginia. Now the tables are completely turned; the sweet potato has become the scarce one, being worth nine pence a pound, and frequently not to be procured, whilst the other is in every day use." During the fifteenth and sixteenth centuries, the markets of England were chiefly supplied by importations from Spain and the Canaries. We have been unable to trace the potato back to its nativity, or to note the full extent of its cultivation, geographically, but there is ample testimony, that it may be grown in all temperate latitudes, and abundantly in all warm climates.—In Great Britain they are produced by artificial heat, but in the southern portions of France and Austria, they are raised sparingly in open grounds.

The Irish potato (*solanum tuberosum*) introduced into England by Sir Walter Raleigh, in 1586, was then believed to be a native of Virginia. It is now determin-

ed to be a plant of South America. It is further stated by Prof. Smee, that "the present Irish potato is an abnormal deviation from the wild or native plant, and upon the authority of Moline, it is asserted, that the natives distinguish the wild potato, of which the tubers are small and bitter, from that which has been cultivated for a long series of years." Whether, like the solanum the present varieties of the convolvulus potato are abnormal deviations, we are not able to decide, but the conjecture is highly probable. *In many of the Northern States this root is believed to be the peculiar growth of the Carolinas, and is found in their markets as the "sweet Carolina," derived no doubt, from the fact, that it has been more generally appreciated, and successfully cultivated in these States than elsewhere.

Of later years, however, since the emigration of our citizens to the more Southern States, its cultivation has been extended, and it may be found from Georgia to Louisiana. In all this region it is quite productive, and although in many instances it is only valued as a food for all kinds of stock cattle, the planters are becoming more alive to its importance as a provision crop for their people (more especially their little negroes in summer and autumn, when all provision grains are more or less depredated on by bugs and insects), and have been directing special attention to the "best modes of preservation." The root varies somewhat in character in different soils and climates, but as there are many varieties of the sweet potato, all of which are highly productive and nutritious, your committee respectfully suggest that a little observation and attention to the adaptation of soil for the growth of any given variety, might materially favor both its cultivation and preservation.

The yam is conceded to be in greatest perfection immediately upon the seaboard, while the Spanish and leather coats, highly valued in the interior of North Carolina, are equally fine in the middle and upper districts. The Bermudas, or white reds (red skin with white heart), though with us particularly adapted to the yellow sandy soil which skirts the coast, is also a favorite in Georgia, Alabama, and the West Indies, and is preferred in the more northern latitudes in which it is grown.

With the view of comparison (as before intimated), your committee, during the past summer, through their chairman, addressed a circular to various distinguished agriculturists in this and other States, asking information upon the most important matters connected with their appointment. The information received, in answer thereto, shows a result highly creditable and gratifying to the planters of Winyaw and All-Saints, who have frequently borne the reproach of not being "a farming people," or in other words, of being behind their neighbors in the cultivation of any thing excepting rice.—We find the potato crops of this district equal to, if not more abundant than those of any other section, and that too with a disadvantage as to soil, most of our up-

lands being naturally poor and unproductive. In the more Southern and Western States, where corn is an abundant crop, compared with that grain the potato crop is about as two to one; but it should be mentioned that, with few exceptions, the system of manuring their potato lands is little known and seldom practised. With us in the rice region, where our corn crops scarce reach an average of twenty bushels per acre, and where the maximum average on a few favored and highly cultivated plantations has never exceeded fifty-five or sixty bushels, we have received returns of potato crops averaging from two hundred to seven hundred bushels per acre; and in one instance a yield of one thousand bushels per acre is authentically reported to have been made on Black River.

We will now give the answers to the interrogatories made by us, in the order in which they were propounded:

1st. Soil. What kind to be preferred?

This depends much upon the character of the manure, or fertilizing ingredient to be used. All planters agree that a rich, high, dry, *sandy* soil, is well suited to the culture of the sweet potato; but various experiments have proved satisfactorily that stiff clay or alluvial soils when liberally supplied with a *silicious* material, such as oat or rice straw, will produce more abundantly than the best sandy lands. Col Bloodworth (formerly of North Carolina, now of Louisiana), says: "deep loam and old alluvial soil yields more than the best up-lands."—We recommend, therefore, for the yam potato old alluvial loam sand, *if thoroughly drained*; but for reds of all kinds, a heavy, yellow sandy soil.

2d. Manures.

We may enumerate all green crops listed or plowed under, oat and rice straw and stubble, pine trash, salt marsh, marsh mud, cotton seed, lime, composts, &c., especially when trampled and incorporated with the droppings from sheep, hogs, horses and cattle.

How and when applied.

In corn and cotton regions moveable cow-pens are universally recommended, claiming the advantages of spreading and incorporating the manure more regularly and uniformly, and saving the labor of carting. New lands or those which have been fallowed the year previous are selected as being less grassy. The cow-pens are passed over from four to six months previous to planting, and the ground well broke up with the plow as soon as the pens are removed. When this system has not been premised, the land should receive two listings—the first very light, drawing into a list or ridge whatever growth there may be; and the second taking the superficial earth from the alleys with the view of getting all the grasses and their seed under, the bottom of the beds. Well rotted manure is then applied, broad-cast over the whole surface, or spread in a drill on the list, the alleys thoroughly broken up with the plow, and the beds made up with a hoe when ready to plant. When cotton seed has been used two or three pecks

have been found sufficient for each half-acre row. Roots do not require as rich a soil as slips. They do best with old, well rotted manure; slips grow freely on new lands with fresh manure.

With us the plan of cow-penning is impracticable, as large stocks of cattle are found unprofitable on rice plantations.—A little system and attention, however, to our stable yards, and the stationary pens of our work cattle has done much for the improvement of our high land crops; much more may be done by making the accumulation of manure a part of the economy of every plantation. Where rice straw (our chief dependence) is used without being trampled by cattle, it should be applied liberally and listed in as early as possible—always after a good shower, or when the land is wet. When the ground has been cultivated the year previous in some other crop, it should be plowed up fresh, and a deep, bold, open furrow then made at the distance required for the beds. The straw is placed in this furrow, and partly bedded under with the plow; the hoe completes the bedding just before planting. The tailings or winnowings of the rice crop is better than the straw and is usually set apart expressly for the potato field.

3d. Mode of culture.

Potatoes may be grown in hills or beds—in both they are equally productive.—Beds are preferable, however, as they are more easily worked, and are less likely to be washed down by heavy rains.—Various distances have been tried from two and-a-half to six feet—preference is now given to the medium distance of four and a half feet from centre to centre. Time of planting—red potatoes for early use, the first good season after the 20th March. Yams and others from 10th to 25th April. A correspondent from Ohio, says that for many years his crop was planted in hills, placing three to four potatoes in each hill, and that he had fine, strong luxuriant vines but no roots. By putting only *one seed* in each hill, and that his crop was abundant.

In beds a drill or trench should be made upon the top, the seed placed six or nine inches apart, and covered two to three inches deep according to soil and season; the earlier plantings deep, especially if the soil is light. "The seed should be pressed down firmly with the fingers into the bed, and *fresh moist earth from the alleys* drawn carefully over them, instead of the usual slovenly mode of scraping the loose dry earth from the side of the bed." This earth from the alley (always more free from grass seed) should be pressed firmly upon the seed with the hoe, by which process the top of the bed becomes flattened, and may, if very wet, form a crust or hardening of the surface, through which the young plants will grow with difficulty. To obviate this, a second hand should follow the one covering the seed, on the opposite side of the bed, and haul up from the centre of the alley as before, bringing the top of the bed to a ridge or point, without compressing it. This renders the first picking of grass (the most important working of the crop)

easier and more effectual. In connection with this, we would recommend, from our own experience, that each hand when *picking* grass, should be supplied with a basket for the removal from the field of every blade that is picked out. In showery weather, or where the land is not quite dry, and the sun very hot, grass that is picked from the top of the bed, and left on the side, or thrown into the alley, will again take root and increase the necessity of the early use of the hoe.

As to cutting of the seed, planters are equally divided in opinion. All agree that the vines are earlier, stronger, more vigorous and luxuriant from seed planted whole. In a very dry season, a stand is also more certain; but many contend, that the product of the crop (*ceteris paribus*) is in favour of the cut seed. They argue, that unsound seed will never bear well, even though a sprout be put forth, and that under the process of bisection they are detected and rejected; whereas, under the plan of planting whole, they are frequently overlooked, and of course, either fail in coming up, or in the product.

The experiment has not been tested accurately by measurement, and the practice may have originated in their scarcity. The largest crops reported have been made under both plans. With the Irish potato, the gain of product in favor of the whole seed, was one hundred bushels per acre in an experiment accurately made in Connecticut, and reported in *So. Ag.*, vol. 9th, 1836.

We recommend, therefore, in deference to all authorities, that, for early eating, and for early vines, the seed be planted whole, for the general crop, when the seed are *scarce*, or *larger than necessary*, they may be divided, but into not more than two parts.

In cultivating the crop, the tops of the beds should be picked, and kept clean of grass and weeds, until the vines cover and shade the surface. The first show of grass on the sides should be destroyed by the hoe, and the beds hauled up the day after, selecting, if possible, a dry time for the work. After the second hoeing of the sides the plow should follow, one furrow on each side being thrown from the bed, so as to cover all the grasses that have been hauled down by the hoe into the alley. From three to five days after, the plough should again pass through, throwing the earth back to the beds, and breaking up the alleys as deep as possible. This work of "plowing down and up" should be done, as the vines are extending into the alleys. The hoe must be resumed for completing the process, by hauling the beds up to their primitive size, care being taken to lift the vines and spread them along the tops of the beds, without bruising or covering them. Any bunches of grass that may survive this dressing, should be pulled up before the tubers or small potatoes are formed.

Slips should be planted the first good season after the vines are strong enough. The land should be highly manured, well

ploughed and laid off in beds, at the distance of four and a half feet. In a good season, three vines laid carefully upon the tops of the beds about two inches apart, will do best; if the season is either doubtful or dry, put four or five vines (to insure a stand) and bank heavily with earth from the alleys, every alternate twelve or fourteen inches. To secure seed for the ensuing crop, a few vines should be planted late, say first of August. The best seed are procured by planting vines from vines,—viz. the growth of the vines of the first or early plantings—they will be small but round and not stringy.

With the view of increasing the productiveness of this crop, it was recommended in 1836, by a correspondent of the Southern Agriculturist, that, as soon as the vines had taken root, and began to grow, they should be cut through with a hoe or spade, by chopping across the beds mid-way where the earth is banked. It was asserted, that the crop would be nearly doubled, "as tubers or roots would be thrown out at each divided end more numerous, as always appeared at the butt ends of the vines at the beginning of each row." By request of my venerable friend, Dr. Jos. Johnson, of Charleston, I had the matter tested during the past summer, on my own place, and obtained the co-operation of several neighbors in the same experiment on their places.—The plan adopted, was to cut the vines of every alternate row in a given half acre of land. The result will be found unfavorable—as follows:

On Col. Ward's Brook Green plantation, Waccamaw, ten rows of cut vines gave thirty-two bushels and a-half slips—ten rows uncut, gave forty bushels and a-half slips, a difference of thirty-three bushels per acre against the recommendation, which would have been much greater in the more productive parts of his field, where the average product was seven bushels per row.

On Mr. M. F. Weston's Guendolos plantation, Pee Dee, each row of the cut vines yielded but four bushels, whilst those that were not divided, averaged five bushels, a difference of sixty-six bushels per acre. At Birdfield (my own place), I had sixteen rows (half-acre in length), selected from my late planting for seed. The soil was very poor, and no manure applied—eight rows were divided, leaving alternately the same number undivided. The yield or product was very small, but the difference in the aggregate was about one bushel in favor of the uncut vines. On Black River, the test was made by Mr. S. T. Gaillard in two contiguous half acres, and the result was a little in favor of the divided vines, being in the product, as twenty one and a-half to eighteen bushels: But we regard this experiment less satisfactory and conclusive than the others of taking alternate rows in the same task. The plan was tried by several other gentlemen of the neighborhood, but we have failed to receive their returns of the result.

4th. Productiveness.

Upon the poorer class of sandy lands,

the potato crop is the most productive that can be grown, being by weight five to fifteen times greater than corn.

Of roots, a good average crop is from two hundred to three hundred bushels per acre—of slips, two hundred to four hundred bushels. Where the system is practised of "manuring highly, and planting less," these figures may be doubled. Alluvial soils, formerly considered unfit for the growth of this crop, are now in high repute, in many sections of the country. The experiment was tested with vines in this district about twenty years ago. A rice field was bedded up in the winter and planted in oats, which matured well, and were harvested in June, and in July the beds were reversed and planted with vines.

The field was well drained the whole season; the product of this crop entirely satisfactory. Since that period, it has been a part of the care and economy of the Sandy Island planters (who have no uplands that will compensate for the labor), to appropriate a small portion of their swamp lands annually for this most valuable provision crop, and where the field has been well drained, they have never failed in their expectations.

A similar experiment was made with roots the last year, by Mr. Joshua W. La-Bruce, of Sandy Island.

After bedding up five feet apart, in the month of April, he planted one acre in yam potatoes, the remainder of the field being fallowed for the destruction of volunteer rice. Before the sprouts of the potatoes had come through, the alleys and sides of the beds were thickly covered with rice straw, so as to shade the land completely. What grass came up on the tops of the beds was picked out from time to time, by an aged and inferior hand, and the crop was made without any additional labor. In harvesting the product of several rows was measured, and the smallest yield per row, of one hundred and forty five feet in length, was seven and three quarter bushels of good eating potatoes, as sound and as well flavored as those grown on the best uplands. The single acre is thus computed to have given five hundred bushels, being equivalent as provisions, to one hundred and twenty-five bushels of corn, and to two hundred and fifty bushels of rough rice.

This plan of strawing upon high lands is strongly recommended, especially where pine straw can be gathered conveniently and abundantly. For both roots and slips, it possesses advantages in keeping down grass, retaining moisture, and preventing the injurious effects of heavy washing rains, succeeded by a scorching sun. The labor of collecting and bestowing the straw may be regarded as equivalent to the working of the crop; but whatever benefit is derived to the growing crop; must be doubly shared by its successor in the increased fertility of the land. Although the potato makes a large return to the soil in its leaves and vines, it is generally esteemed highly recuperative to the land, it is well known to be a very exhausting crop,

and the same ground should not be planted in roots more than two consecutive years. In one instance, after thirteen years culture, without change of rotation, even with the addition of seven hundred to eight hundred bushels of compost manure, the crop failed entirely. The same resulted with oats and slips after ten years. (So. Cabinet, 1840.)

Mr. Tuomey, in his Geology of South Carolina asserts from analysis, that every one thousand pounds of corn, takes from the land but five and a half pounds, whilst every one thousand pounds of potatoes takes seven and a-half pounds of their respective ingredients. It is also said, that a bushel of potatoes, fresh dug, will weigh from seventy to eighty pounds, and Col. Bludworth "once pulled up the vines from a single hill, from which were hanging sixteen good potatoes, averaging one and a half pounds;" he also recollects seeing a single potato raised on old river bottom soil weighing ten pounds, from which, it may be readily conceived, how indispensable to rotate this crop, even on the best lands.

5th Varieties of the potato—which preferred.

There are several varieties of the red, and two or more of the yam, as well as the Spanish. We are also familiar with the Scotch or leather coat. Of the reds, the Bermudas or white hearts, the brimstone, Mexicans, Africans, &c., all have their friends and admirers.

We prefer the Bermudas for summer use or early eating, as being most wholesome, early and productive, and the white yam for a general crop. It is very productive, nutritious and well flavored, and is the most easily preserved. The leather coats are the most productive in very poor sandy land, and are preferred by many of our sand hill farmers. The African (red) keeps well, and is also productive, but not so early as the Bermudas.

6th. Preservation.

It is a well known fact though unexplained, that root potatoes do not keep as well as slips, or tubers grown from the vines. I will not detain the Society with the many interesting speculations and comments on this point, but simply notice what is stated as the experience and practice of some of the Alabama planters. "They show that roots may be preserved as long as slips, if they come in as late, and are put up in hills." They recommend that roots be planted at different intervals from the last of February to the first of June, so as to have a succession of crops, which, to some extent, meets the contingency of a failure in an early slip crop.

The difficulty of preserving this crop does not arise, as is supposed by many, from its being housed at an improper time, either too early or too late; nor, as is believed by others, from a want of care in selecting and rejecting such as may be cut and bruised in gathering them; nor, as is assumed by others, does it depend upon the soil being too rich or too poor, or the season too wet or too dry. All these supposed causes may, possibly, exercise some influence, but the immedi-

ate and direct cause of rot is *sudden fluctuations of temperature*. The only secret, therefore, of preservation, is to keep them at a moderate but *uniform temperature*, insensible to the vicissitudes of weather—insensible to the changes of heat, cold and moisture. Ships made in alluvial soil, or low wet grounds, keep just as well as those grown on dry sandy lands. In one instance we witnessed a crop harvested on the rise of a freshet, when the water had gained so as to cover the surface of the land; and although a large portion of the crop was removed immediately, while wet, to the cellars, they kept quite as sound during this season as they usually do under the most favourable circumstances.

Three plans are in use for the preservation of the potato, viz: in hills, in cellars, and in framed buildings. The first is to select a dry sandy spot, all vegetable matter being removed from the surface for several feet around, to plant a pole or stake in the centre, around which the potatoes are piled up conically, from twenty to fifty bushels in each hill or pile, then to be thickly covered with clean dry pine straw, over which a second covering is made with corn stalks or pine bark, and the whole heavily banked with earth. The pole or stake should be drawn up after banking, and the air hole or ventilator thus kept open by a loose covering of bark or straw for several days, but to be securely closed over before cold weather sets in. This plan succeeds well where the banks are sheltered by scaffolding from heavy rains and freezing weather. It is impracticable, however, for harvesting a large crop, and we can only advise it as the best method for keeping seed slips.

The second plan, in cellars, is one most generally adopted. A high dry spot being chosen, a centre string piece raised from six to nine feet and supported by posts set in the ground, is firmly fixed, and rails or puncheons resting upon this are extended down and around on either side, giving a diameter to the cellar of fifteen to eighteen feet. The length, to suit the size of the crop, from forty to one hundred feet. Corn stalks and bark are placed over the rails, and the earth heavily banked over this—the top being protected by bark or a ridge board.

Many minor matters of detail are to be observed under this plan. The cellar should be built of seasoned rails, or puncheons, (not those fresh split from green timber,) it should be erected two or three weeks before the crop is housed and a fire kindled in it every day to exclude all moisture; it should have a southern front, and the rails should extend eight or ten feet beyond the door or entrance, to prevent the access of driving rains, to give shelter to the watchman in charge, and to allow room for kindling a fire on the outside. The slips are to be dug, (after a frost sufficient to check vegetation,) on a sunny day and are to be placed in the cellar *before sun down* so as to escape the dew. They must be piled carefully, avoiding any pressure against the rails around the foot of the bulk, and all

that are cut or decayed in any way, put in a corner to themselves.

In addition, it has been recommended by some to sprinkle dry sand among them, as they are brought in, with a view of absorbing any moisture that might arise. Others, again, pursuing the opposite extreme, dash them with cold water to prevent their heating, and the friends of both these recommendations claim great success. In our judgment, much more depends upon the particular season than upon any special mode of treatment.

The experience is universal that in a moderately cold and dry winter, our crops keep very well; and in sultry unseasonable weather the loss is great. To this rule there may be individual exceptions; but we hazard nothing in asserting that they will be found among the shrewd practical observers who adopt the plain teachings of nature in keeping their cellars open and cool in warm weather, close in cold, and as dry as possible, (by smoking) in damp weather.—The objection to this plan is chiefly in the annual or biennial expense of building.

Where timber is already scarce, and daily becoming more so, we are forced almost necessarily to the adoption of the third plan of erecting framed buildings.

Brick cellars have been tried, but soon abandoned, in every instance that has come to our view.

Framed buildings have been used five and twenty years. A correspondent of the *Southern Agriculturist*, (vol. 2nd, 1829,) describes one which was erected two years previous and which had succeeded to his entire satisfaction. He says, "the house is forty feet long, twelve feet wide, and eight and a half feet high to the top of the plates; it is framed in the common manner of houses, roofed in the usual way, with good cypress shingles; the posts are set in the ground, they are several inches thick, with a groove near the inner edge to receive puncheons one inch thick, split like rice barrel staves; it is weather-boarded with inch boards, between which and these puncheons on the inside, is a space of four inches filled with well tempered clay, forming a close wall supported and defended from weather by boards without, and the puncheons within. One door in the middle of the southern broad side, no other opening in the house.—The interior is divided into four compartments by the same process of filling in with clay, and the loft is covered with rails and filled with straw. No ventilators or air holes are requisite. The door kept closed as constantly as practicable, both to shut out the external air and in compliance with a recommendation from Cobbett to exclude light from roots and vegetables when housed."

In this and the adjoining parish, framed cellars are built pretty much on the foregoing plan, excepting the walls of clay.—They are made from fifty to one hundred feet in length, about fifteen wide, tightly weather-boarded and shingled. Spouts or ditches (covered loosely with boards, through which are many augur holes for

the passage of the smoke,) extend from a pit some few yards removed from the cellar, and ramify under the potatoes through the entire length of the building. Every damp day, after housing, a smoke is thus forced through them, and in very cold weather the top of the bulk and around on the sides is thickly covered with straw to meet the change; and if the weather becomes warm the door is opened to allow free circulation. This plan succeeds well, and your committee believe that it will be generally adopted as the most economical and therefore the best they can advise. We have seen framed cellars which hold 3,000 to 4,000 bushels, and the proprietor informed us that his potatoes kept perfectly sound even though crowded together in such large numbers.

We have also seen a cellar constructed by R. F. W. Allston at his Nightingale plantation, with a thatched roof, in which, during the past winter, the crop was kept in excellent preservation.

The chairman takes leave to acknowledge his obligations to all who have aided him by contributing the materials for this report, but especially so to Dr. Jos. Johnson, of Charleston, and to Mr. C. H. Mason, of Indiana.

How to get New Varieties of Potatoes.

WHEN the vines are done growing and are turned brown, the seed is ripe: then take the balls and string with a large needle and strong thread; hang them in a dry place where they will gradually dry and mature without danger of injury from frost. In the month of April, soak the balls for several hours from the pulp; when washed and dried, they are fit for sowing in rows, in a bed well prepared in the garden; they will sprout in a fortnight; they must be attended to like other vegetables. When about two inch-high they may be thinned and transplanted in rows. As they increase in size, they should be hilled. In the autumn many of them will be of the size of a walnut, and from that to a pea. In the following spring, they should be planted in hills, placing the large ones together,—they will in the second season attain their full size, and will exhibit several varieties of form, and may then be selected to suit the judgment of the cultivator. I would prefer gathering the balls from potatoes of a good kind. The first crops from seeds thus obtained, will be productive, and will continue so for many years, gradually deteriorating, until they will need a renewal by the above process.—*Exchange Paper*.

A farmer should never depend upon his neighbor for what he can produce on his own farm; should never beg fruit while he can plant trees.

The Crops.

Messrs. Editors:—As I have visited the greater part of Darlington and Sumter districts, I presume an account of the crops will not be uninteresting to many of your readers. The month of May was very dry, and our crops looked as if it was impossible to improve them by rain or work. A worm attacked the bud of the corn, and in many instances destroyed the whole stalk—our prospects were every thing but fair, until about the 5th of June, when the rain set in, and we have had fine seasons since. Our corn has improved far beyond our expectations, and cotton looks as well as I ever saw it at this time of the year. We have made heavy wheat crops. Oats were injured by the dry weather, in May, so much so, that the crop is rather below an average. Rye was very fine. Fruit, tolerably plenty.

We have had several severe hails, and in some places did severe damage, but the corn being young has recovered from its effects. In short, gentlemen, we have reason to congratulate ourselves on the present flattering prospects of our crops, and if no disaster takes place, we will soon luxuriate on the fat of the land.

Yours, respectfully,
J. E. BYRD.
Darlington June, 25, 1851.

Review of the June Number.

THE JUNE No. of our monthly friend is before us, and we will give you our poor opinion of its merits.

"Pencilings by a Planter."—A very agreeable melange truly—we hope that the caption "concluded" may be a theatrical flourish, only to begin again. J. P. B. must not lay aside his pencil, we sadly need such earnest workers in our cause. Brother Farmers and Planters, will you just read that paragraph on rotation of crops again—it is worth pondering upon. What a ridiculous farce is this system of rest, generally practised throughout the country—cotton, corn, wheat or oats and rest!! with every living thing, from the old bell-cow down to the geese, turned in upon it 'til cotton comes again—verily it is rest with a vengeance.

"Improvements in Agriculture."—It is cheering to hear of any progress in this department. We are the slowest of all people to take advantage of the discoveries of science, or to listen even to the teachings of common sense. There must be something in it, though, for to-day we received a note from a neighbor for "that plow which plowed and hoed the cotton both at once, as he wanted to have some made by it."

"Soap Suds."—How many gallons are thrown away every washing day, on every farm? If it were thrown upon the compost heap—about the roots of grape vines, fruit trees, rose bushes, or any where in the garden, it would soon tell.

"Looking for a better Country."—Very good—there is often as much in the boy as in the Col. lege.

"Joint or Bermuda Grass."—I. S. W. may be very good authority on the eradication of Bermuda, but he is clearly wrong when he pronounces "Joint and Bermuda about the same thing." So many grasses have been dubbed

Bermuda, that it has produced a great deal of confusion. The true Bermuda grass (*digitaria dactylis*) abounds in many parts of Georgia—is the same written about by Dr. Phillips of Mississippi, and is of a darker green color than most of the joint grasses (for there are several going by that name) it has three or four spikes all coming from the same point of stalk, and has seed, but does not all seasons perfect them. Its roots do not run as deeply into the soil as joint grass, nor is it as fond of water, and low moist spots.—It has been introduced for more than a century into this country, and is doubtless pretty widely diffused.

The Joint grass (*digitaria aquatica*) is another sort of customer—it delights in wet soils, low swampy places and even in water. We have known it to dam up Lockhart's shoal canal.—The roots run very deep, sometimes 10 or 12 feet under the surface, and it is next to impossible to eradicate it. It has two spikes, and is not as rich a green as the Bermuda. There is another grass often called Bermuda, wire grass and Joint grass (*paspalum dasyphyllum*), which is to be found almost every where, it is a pale green, has two spikes coming out together from the same point of the stalk, and a dark bloom—it delights in wet spots, runs in water even, and thrives best in tenacious clay soils. As the roots do not run very deep, it is easily eradicated.—We have never been able to detect any perfect seed in the seed vessels. Hogs are fond of the roots, and branches, and sheep seem to like it pretty well. Shallow plowing so as to throw the roots out exposed to the sun or frost will soon destroy it—deep plowing improves it wonderfully.

"Clover vs. Turnips."—The "turnip a benefit to land!"—all gammon—"theatrical planting," this, truly. Common sense come to our aid—did ever any body grow turnips on poor land? If this cannot be done, we take it, that it must be the culture, and not the turnips, which improves the soil, if any improvement does take place.—Sprengel says, 20 tons turnips contain 15 lbs. of alkalis and 50 bushels wheat with its straw added only sixteen pounds. Professor Johnson in comparing the amount of alkalies abstracted from the soil by the grain and green crops, says that "nine tenths of the potash and soda withdrawn from the soil are contained in the green grasses," and that "every ingredient except silica is greater."

"A Proposition from Black Oak" we hope will be responded to from all quarters. We know no section of country which has done more to enlighten the public mind upon Agricultural matters, and to elevate the tone and standard of Agricultural knowledge, than Black Oak.

Ashes of the Cotton Plant, &c.—Like every thing from the pen of that gentleman, lucid and interesting.

"Editorial Remarks on Meteorology."—Very good, we shall respond to them more satisfactorily one of these days.

"More of the Cherokee Country."—We thank Mr. Whitten for the notice of our remarks as to the calcareous character of this region—we trust

that we may be the means of drawing out some person still more familiar with its geological character.

"Grasses."—For soiling purposes we know nothing better than Lucerne. It loves a light, rich soil, and when once set, should always be cultivated with the hoe.

"Southern Cattle" in Texas.—"But what is very singular, you hardly ever see a large stock raiser who has a sufficient quantity of milk and butter for his table"—very singular, indeed, for a great stock country!

"Use of Ashes."—No doubt about it—but it is as much as we can do to collect enough every year for the garden and potato patch. Asheries, where ashes can be bought at 25 cents a load, are not hereabouts.

And the old North State has made provision for the appointment of a "State Agricultural Chemist"—right—we are sorry that the intelligence of our people is not ripe enough for such a movement. Our politicians are afraid to trust the people perhaps.

"The Iowa Pea," should be written Java Pea, and is identical with the Shinney pea, the Jefferson, the Partridge and the speckled. It is not a climber—blossoms and bears all summer, and matures early enough the first pods to make a second crop. It shells out easily and is therefore subject to waste.

"Correspondence."—Brother Farmers and Planters—why do you not rise to the rescue? Send in your dollars and communications—your experience, to the Farmer and Planter, and let us nobly strive to maintain a reputation for intelligence as well as thrift.

"Gen. Adams's Letter."—Gentlemen, here is something worth reading—we take it; no man has ever travelled through "The Fork," without being struck with the wonderful neatness of their planting operations, or without the thought being suggested—"how in the world do these planters grow rich on such poor land?" The mystery is solved by Gen. A.'s letter—regular manuring, systematic management, and clean culture. We have heard it said, that it is because they can cultivate more to the hand than we do. Not so—here is only fifteen acres to the hand—but it is well done—slowly and surely done. More failures arise from planting a crop in too great a hurry than in any other way.—Take time at the beginning, and remember that, "without the requisite number of stalks to the acre, you cannot gather a full crop."

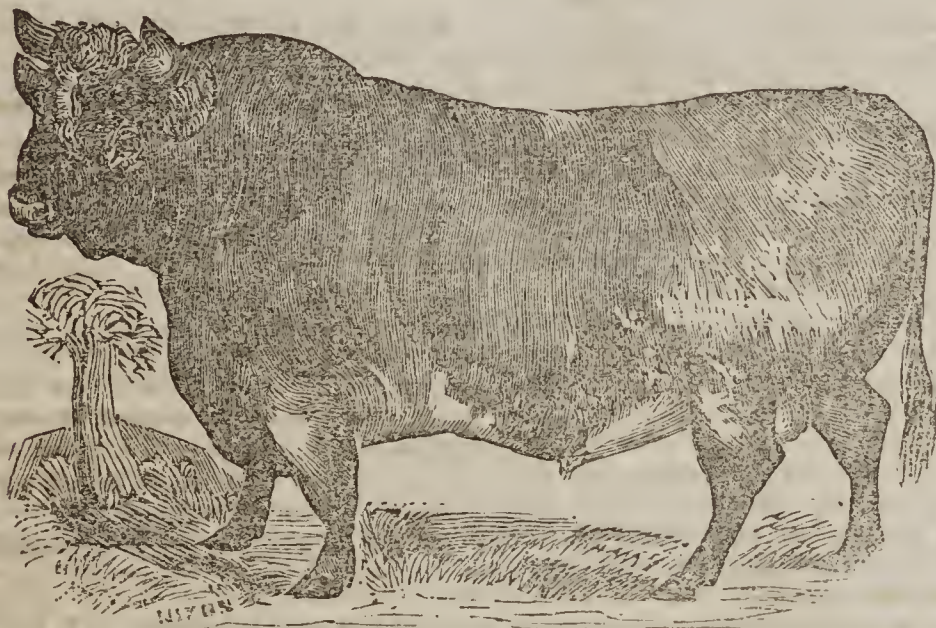
Yours, truly,
Big Branch, June, 1851. BROOMSEDGE.

To make Liquid Glue.—One quarter of a pound averdupois of shellac, dissolved in three ounces, apothecaries' measure, of naptha; put the shellac into a wide-mouthed bottle and pour the naptha upon it; cork it up and stir it with a piece of wire two or three times during the first thirty-six hours. It can be made without any measurement, by adding shellac to naptha until it becomes of the consistency of cream. When the shellac is thoroughly dissolved in naptha, it forms a liquid glue always ready for use.

Improved Stock.

Because the South is not altogether as well adapted to grazing as Kentucky, New York, or Vermont, we see no reason why we should be entirely neglectful of the improvement of our stock of cattle. To be sure we may, if we choose, import our butter and cheese, but we cannot bring from abroad the cream and milk which we want upon our tables every time they are spread. We might as well attempt to import in cans the air we breathe. Every housekeeper must have his cows, and every farmer ought to have his yoke of oxen. Is it better to have a large crop of cotton of fine staple or a meagre crop and poor fibre? Is it more satisfactory to pluck the swollen ear of corn or the shrivelled nubbin? Is it better to have a flowing pail of rich milk or a pint cup of sky "blue-john?" If so, then is it better to have good cows. It is true there is much in the feed, but

there is also much in the breed of cattle. Experience has shown too clearly to be doubted that stock may, by long continued care and attention, be radically changed in their form and characteristics. They may be carried to a high degree of perfection in their qualities. Some breeds in their ascent take on fat kindly, others excel as milkers, others are more valuable for working qualities. These characteristics are found to be transmitted from the ancestors to the progeny, and of course should govern us in our selection of animals. If we wish a milker there is a key to direct us. We must have an eye to the uses we have for the cattle. We must look also to the climate if we would be judicious. It would not be advisable to introduce into the South large feeders, such as can thrive only on luxuriant pasture. The Ayrshire cattle have good constitutions, are easily kept, and good milkers. They also take on fat easily and it is mixed



(AYRSHIRE BULL.)

through the whole flesh, so that in this breed we have blended the dairy and the beef cattle, a point of no little consideration. "The origin of the Ayrshire cow," says Youatt, "is even at the present day a matter of dispute; all that is certainly known about her is, that a century ago there was no such breed in Cunningham, or Ayrshire, or Scotland. Did the Ayrshire cattle arise entirely from a careful selection of the best of the native breed? if they did it is a circumstance unparalleled in the history of agriculture. The native breed may be ameliorated by careful selection, its value may be incalculably increased—some good qualities—some of its best qualities—may be for the first time developed; but there will be some resemblance to the original stock, and the more we examine the animal, the more clearly we can trace out the characteristic points of the ancestor, although every one of them improved.

If Mr. Aiton's description of the present Ayrshire is correct, the breed is very much changed, and yet there is so much indistinct resemblance, that a great deal of it must have been done by careful selection, from among the native cattle, and better feeding and treatment; but when we look closer into the matter, the shortness, or

rather diminutiveness of the horns, their width of base, and awkward setting on—the peculiar tapering towards the muzzle; the narrowing at the girth; the bellying; and the prominences of all the bones—these are features which it would seem impossible for any selection from the native breed to give. While therefore the judge of cattle will trace the features of the old breed, he will suspect, what general tradition confirms, that it was a fortunate cross, or succession of crosses with some foreign stock, and that, probably, it was the Holderness that helped to produce the improved Cunningham cattle.

In many a district the attempt to introduce the Teeswater breed, or to establish a cross from it, had probably failed, for the soil and the climate suited only the hardihood of the Highlander; but here was a mild climate—a dairy country; the Highlander was in a manner out of his place; he had degenerated, and the milking properties of the Holderness, and her capability of ultimately fattening, although slowly, and at considerable expense, happily amalgamated with his hardihood and disposition to fatten, and there resulted a breed, bearing about it the stamp of its progenitors, and to a very considerable degree, the good qualities of both."

Oats.

MESSRS. EDITORS:—I am very sorry that I am unable to appreciate your June No. as I should—there being references, at least by Broomsedge, that I know not of; and the reason—I do not see your paper often enough to get into the hang of matters. I think now, your June No. is about the sixth No. I have ever seen. I know you mail it to me (we do—Eds.), and for which I feel deeply indebted to you.

In looking over your present number, I feel constrained to say something, not that I am willing to enter the list against my friend Broomsedge. In his "Review of the April number," pp. 88 and 89, he is pleased to throw down the glove to some "Dr." Now who that same "Dr." may be, I can only make a "guess," from being a reader of the agricultural papers generally. If that "Dr." chooses to take up the banner with B., when he acknowledges his lance is broken—more than I remember to have seen him admit—why he may, and it is no business of mine. But I shall not, knowing that Broomsedge can so order his artillery as to make the less appear the better cause. I mean he is too apt and ready a writer for me to cope with.—But as he seems to think there is some good in oats, at least, and my experience may lead him and others to try with more heart, I feel inclined to say my say. We might argue for months and it would be only words at last. I may argue from my experiments, upon our soil, and from my readings—he might from his—we might both be right, and yet both have "broken" lances. Broken, Webster, always at my right hand when here, says, "parted by violence; rent asunder; infirm; made bankrupt. I hope I use no force in thus applying "broken." But to the point.

I have found oats to be an exhauster, or not, as they are used; and I have thought they were not more so than corn, grain generally, or cotton. Were we merely to strip the grain, leaving all the stalk, would the land be exhausted more than if in corn or cotton? I ask for no opinion, give facts.

I know a piece of land, a large piece too, about 300 acres of the best land in this part of the world, which was growing cane 20 to 30 feet high when I first saw it, and I am not old yet—oh, no! The owner of this land says it needs a change, that it has grown corn and cotton until it is tired. He speaks of sowing it down to oats—Oats? aye, Mr. B., to oats. I mention this, to say why it is exhausted. The land has been cultivated many years upon the three inch plowing system, the land turned out to stock all the winter; it is gleaned of every stray spear of grass, even that tough old customer Broomsedge has no chance, and, worse than all, it is tramped to death.

My land, in culture as long, never as rich, even now produces as much or more. Is this not the oat planting system? and yet the poor oat has to bear the curse—made the scape goat of the skinning, poaching, and taking every thing off—returning nothing to the land—system. In the last notice in same article, "Joint Grass," Broomsedge says, "The ONLY way it can be

eradicated." (capitals are mine. If he wants to "renew the discussion," he ought not to speak so imperatively. He certainly has seen the success of others by another way. And this is the way, may be, he broke his lance—by being over strong. I merely throw this in, by way of showing strong assertions do not even give a demonstration.

When we speak of exhausters, I mean as talkers and writers, I have thought we mean something being much more so than usual. I therefore deny, from my experience, that the oat is more so. Give land good tilth, take no more off, give it no more stock, and no longer than is done to other fields, then give the results. I think this is the best way to benefit ourselves and our readers. I have no desire to gain eclat as a writer, yet I must declare, I wish I could handle a subject as well as such writers as B. Jethro, Coke, and others. Because, I know I love my calling, I know I would love to aid my race, and I think I know some things that would advance even the three, if I could put a comely garment upon my thoughts.

I do not write against B., but only that "materials for thinking" may be furnished your readers. And I don't half like to see even my friend B. carry off all the glory. I had better stop now, lest you will think I am envious.

Yours, &c.

STRAWES.

Permit me to touch upon a subject above the one alluded to in this—"Report of the Committee on wheat"—in my next.

From the Farmer and Gardener.

Experiments of the injury to Corn caused by gathering the Fodder.

SEVERAL publications in the Register have stated the increase of Indian corn, matured with the blades and tops. The common usage in this country, which I have followed, is, to gather the blades as soon as they begin to spot, and to cut out the tops immediately on securing the blades. About the first of September last, I stript the blades from several rows in one of my corn fields, leaving a row alternately undisturbed; and cut the tops about the 7th of the month, in like manner. As I designed to make a fair and satisfactory experiment, I suffered both blades and tops to be much withered before I took them from the stalks.—The last of November I gathered the corn from the stripped and unstripped rows, when it was dry, and in good condition, and put it away in my barn in separate parcels, in the shucks, from both of which I husked out on the sixth of the present month, one hundred ears, without particular selection, and now subjoin their weight and measurement.—I am sensible that this experiment will not precisely correspond with others which may be made. The result of such experiments will be influenced by the quality of the soil, the goodness, of the crop, the manner of planting, and the maturity of the corn at the time the blades and tops are gathered. My experiment was made from a field planted four feet each way, which had an early, vigorous growth, unchecked by in-

sects, or drought, and which produced more than forty-five bushels to the acre. I made other different trials upon the parcels I have mentioned, both by weight and measurement, which I think unnecessary to state, as they all tended to the same result; but perhaps I ought not to omit to mention that the weight of the cobs of the unstript corn was double the weight of the stript, as it proves that subtracting the blades and tops dries up that part of the plant which immediately supplies the aliment to the grain. To this cause I attribute the perfection of the grain to the end of the cob of the unstript corn, whilst that on the stript had, for the most part, withered or perished.

100 ears of Indian corn matured with blades and tops—weight on cob,...	64 lbs.
do. shelled,.....	54
do. measurement, 26 quarts, 1 pint.	
100 ears of Indian corn stript of blades and tops—weight on cob,.....	50 lbs.
do. shelled,.....	41
do. measurement, 21 quarts.	

I have long desired to abandon gathering fodder; but it is hard to depart from common usage, especially if the deviation has the appearance of negligence. The month of September is usually devoted by farmers to this work; the dews are then heavy, and highly injurious to laborers: it is the season for intermittent fevers, which I believe are often contracted by this employment. The month of September might be most usefully employed in drawing out marl and other manures, and preparing fallows for wheat. When the wheat is sown and the corn gathered at full maturity, the corn-stalks with the blades and tops, afford some provender and excellent litter for cattle. Few farmers have such floating capital, as justify them in entering upon the schemes of improvement without calculating the cost and probable result. The provender afforded by Indian corn cannot be abandoned, unless an equivalent be supplied. A farm divided into four or five fields, of forty acres each, and one of them annually in Indian corn, will not produce fodder, even if the land is in an improved state, beyond five hundred pounds to the acre—equal to ten tons. Four acres set in orchard-grass and clover, will, if marled and manured, in two cuttings yield ten tons of hay. A gentleman in an adjoining county, in whom I have entire confidence, assured me that from one acre, very highly improved, he gathered six tons in one year. I estimate the enclosing, marling, manuring, and setting in grass four acres, at one hundred dollars per acre, and the land thus diverted from the usual purposes of agriculture, at twenty-five dollars per acre, amounting in the whole to five hundred dollars.—The capital thus invested, is not sunk, but is safe and sound, and the interest on this sum, together with the cost of cutting and securing the hay, which I estimate at forty-five dollars, is the price to be paid annually for hay in lieu of tops and blades. A field of forty acres of Indian corn which now yields, under the old system of gathering, forty bushels to the acre—equal to one thousand bushels,

if my experiment, or that of others, be not entirely fallacious, will produce an additional fifth, amounting to one thousand nine hundred and thirty-three and a third bushels—equal, at fifty cents a bushel, to one hundred and sixty-six dollars and two-thirds, to which is to be added the value of the labor saved, and the grazing after the hay is secured, which is worth something. If a lot be once well set in orchard grass and occasionally dressed with manure from the stable, where the grass is fed, it will remain in a state of undiminished production for many years—in this I feel confidence, from my own observation.

As this article contains little more than a statement of facts, I have subjoined my name in attestation of their accuracy.

WM. CARMICHAEL.

Wye, Queen Ann Co., Md.

Since the above was in type we find the following article in the Farmer's Register, which we subjoin.—EDS. F. & P.

"I have this year made an experiment to ascertain the loss occasioned to the corn crop by taking off the tops and blades at the usual time. Eight rows at the gathering the fodder (September) were left untouched, extending from one end to the other of a field of fifty acres. Four rows on each side of the eight extending in the same manner through the field, and on ground in every respect the same, had the blades pulled off and the tops cut. The corn when matured was carefully gathered, put in separate parcels, stripped of the shuck and measured. The corn which retained its blades and tops to the last, furnished 17½ barrels of measured ears; the other eight rows, which had been stripped, yielded 16 barrels. A bushel of each was weighed, but there was no apparent difference by the steelyard. The loss sustained by taking away the blades and tops is by this experiment within a fraction of 12 per cent., being 11 barrels and fifteen-sixteenths.—This however is not all; the land is deprived of an exceeding rich manure in the blades and tops, as will occur at once to those who have observed the places where blade and top stacks have stood; a manure that goes far towards affording an equivalent for the draft made from the land by the crop. I have a field, on the Scioto in Ohio, from which forty successive crops of corn have been taken, nothing but the grain however having ever been removed. The ground has sustained but little diminution in its product, except on a few spots where the soil has been abraded by freshets. This culture has been forced by peculiar circumstances of position in relation to the river, and the kind of labor used there, but is now about to be changed, as those difficulties are overcome. I am sure no land could have borne such a system where the tops and blades were taken off; but the limits of a letter would not afford space for my reasons.

I left at your office in Petersburg, last

June, a specimen from some ground yet covered with wood immediately adjoining, also a third specimen from land that had yielded crops for the last ten or twelve years, from the vicinity, and of the same formation. An examination of these specimens, by one (like yourself) skilled in the analysis of soils, might lead to interesting results.

Yours, with high respect,

T. MASSIE.

Cure for Ague and Fever.—The following very simple remedy for this disease has been communicated to the Mobile Advertiser. If efficacious it may have some influence upon the value of Quinine. At any rate it is worth the experiment of a trial:

Mr. Editor—Let me communicate to the public, through the columns of your paper, a very simple, but a very *certain* cure for Chills and Fever.

The first chill is generally very light, and one is apt to suppose it will end there. The second one comes on the same hour, say the second day after. The exact time is then known when the third may be expected, and the patient has his case completely under his own control. In anticipation of the third chill, about a half hour or twenty minutes before, apply a strong mustard plaster six by eight inches, up and down the small of the back. This creates a reaction throughout the system, and the chill time passes harmlessly by.

In order to facilitate and make more certain the cure, it would be better for the patient to take a dose of purgative pills, allowing sufficient time for the effects to pass off before the chill time.

This simple and certain mode of curing chills and fever need only be tried to convince one of its efficacy and of the folly of stuffing people to death with drugs.

J. M. B.

From the Savannah Republican.

Growth and Maturity of Cotton.

You, Mr. Editor, and I, received our education at a school where we were never permitted to take bare assertion as a proof of any fact, but were taught that certain rules governed every thing, and (all things being the same) that these rules never varied—that as certain laws governed the revolution of the earth and the planets around the sun, so also, other laws governed the growth and yield of fruits and plants. If this be true, is cotton an exception? If not, why do we see in every paper we read, published at the south such contradictory accounts of the plant from the same sections of country? It is from ignorance in those of us who plant cotton, and because we have never examined and found out the laws that do govern the growth of this weed.

If these laws were properly understood, these contradictory reports would never be seen.—Knowing some things, we might reasonably calculate the unknown. There is one fact known in regard to cotton, and admitted by all to govern the amount of the crop. This fact is early blooming—and here a very natural question arises, can any thing be done to remove the injury

done to the plant by a late blooming season? I answer, nothing; for the maturing of cotton is a thing of time, and all the manures in the world will not alter it one single day. I assert, that from the first appearance of a square or form to the bloom, twenty-six days must elapse, and from the bloom to matured cotton, or open boll, that thirty-two days are necessary, and no kind of weather or cultivation will alter this fixed time. From this you see if your cotton is late in the spring, all you can do will not make up for the time lost, for with cotton the old adage is strictly true, "time once lost can never be regained."

Now apply what is said above to the present crop, and what are the facts, last year the cotton crop was in full bloom (my farm book tells me) on the 20th of June; This year, cotton will not be in bloom before the first of July, no where in middle Georgia. I say so, because I have seen the crops in Washington, Warren, Richmond, Hancock and Jefferson, and I am honest in the assertion, that I have seen no field, the cotton in which would average eight inches in height to the stock. And though 'tis nonsensical to pretend at this time to predict what the crop will be, all who do not wish to see their names in the papers as having had a cotton bloom, will agree with me, that cotton never before at this season gave promise of so poor a yield. Yet in this State, should the weather be favourable, and the frost stay off later than usual, we shall make average crops of cotton. In Alabama where the boll-worm and caterpillar commence on cotton about the 1st of September, and destroy all the bolls that are not hard by that time, the crop can at this time be estimated—and the first bloom I have seen mentioned in the Alabama papers, was the 11th of June, leaving only fifty days till the boll worm commences its ravages—and the first blooms in Mississippi and Louisiana, were seen the 6th of June, leaving only fifty-five days before the worm makes its visit to those States.

The blooming season is very late for those States, the average usual time being on the 20th of June. From these statements I agree with your correspondent of Bellair Fla., "that the crops of 1851 will prove as great a failure, as has been known for several years past."

JEFFERSON.

Jefferson Co., (Ga.) June 18.

Experiment with Corn—Deep plowing and Green Crops.

THE ground upon which the experiment was made was as near alike, and prepared as near alike as could be. The corn was planted the 4th of May, three by five feet. That which was plowed, was plowed the widest way only. Four rows were plowed exclusively with the coulter, from eight to ten inches deep.—Plowing repeated four times, at suitable intervals. The next four rows were cultivated entirely with the hoe. The balance was plowed as is usual here; first throwing the earth from, and then to the corn, and plowing four times. All was kept clean throughout the season. Two

rows of that cultivated as usual, when gathered, weighed 42 pounds. The next two, hoed corn, weighed 48½ pounds.—The two other rows of hoed corn weighed 43 pounds. Two rows of coultured corn, side by side with the preceeding, and having the same number of hills and ears of corn, weighed 45½ pounds. The hoed corn was nearly prostrated twice by wind and rain, I had to set up the greater part of it just before and just after it tasselled. The coultured corn suffered hardly half so much as the hoed. The residue suffered comparatively little. These are the facts. Deductions are for you and your readers. The quantity raised on the ground is of no consequence.

I conducted various other experiments with corn, but do not deem them of sufficient interest to burden your columns, nor bore your readers with them. These little things are interesting to me, however, and I always have some such under headway.

I book-farmed that famous bottom I spoke to you about, and made a fair crop of corn. Last year, it took sixty of the largest ears to shell a bushel; this year, forty-eight do it. This book farming makes me the subject of great ridicule and merriment. For instance, you advised us, last spring, to plow deep and pulverise well. I did so, but was laughed at therefor. You advised the sowing of corn broadcast. I sowed something like four acres. This threw a great many neighboring diaphragms into convulsions and cachinations were rife and boisterous thereat. So well am I pleased, however, that I shall give them an opportunity to split the larynx outright another year. The quantity of fodder produced was enormous, besides a *pretty considerable sprinkling of corn*. You apprised us that it might be well to sow rye for early grazing, soiling, &c., next spring, and I have done so. It is *too green* to laugh at now. You instructed us to sow twelve quarts of Timothy seed per acre. I did it. And if they do laugh at that, it is mighty green. [Fearing that some of our readers may not understand the full meaning of the word "green," as here used by our correspondent, we explain, that the Timothy and rye sowed by him, agreeable to our directions, have already covered the land with a thick, *green* herbage, and give promise of uncommonly large crops of hay and grain.—Eds.]

To renovate land, you inculcate turning in green crops. I capsized all my clover—masticators displayed themselves

of great length and breadth. Of all the green things, the wheat on that clover land is the greenest; and rather too green to laugh at. The land having been put in order by plowing, harrowing, and crushing, the wheat was plowed in about three inches the first of September, and I harrowed in the first of October. It looks very well. U. B. OGLESBY.

Missouri paper.]

Substitute for an Ice House.—Take a large hogshead with one head and bury it in loose, porous earth, in some shady place; or for lack of such earth dig a hole larger than the cask and fill around it pebbles, sand, charcoal, and provide a drain beneath. Make a hole in the bottom of the cask so that it will not hold water, and leave a space under it of some inches. Now take an iron bound tub, eight or ten inches less in diameter than the inside of the hogshead, with a hole also in the bottom directly over the other. Fill the space between the tub and cask with pounded charcoal, and fit a tight cover on top, and cover that with a bag of coal after it is filled with ice.

Cleansing the Bark of Fruit Trees.—We have often recommended the use of whale oil, soap, potash, &c., for cleansing the bark of fruit trees, and supposed that no application could exceed it for this purpose. A few weeks since we visited the seat of Robbert Rennie, Esq., near the Lodi Print Works, and there saw the cleanest fruit trees it has been our lot to meet with. Mr. Rennie informed us that he used a solution made of one pound of best bleachers' soda dissolved in one gallon of water, and applied to the surface of his trees. All the fungi, dead bark, &c., are softened and readily exfoliate from the healthy part of the bark during the growth of the tree—the surfaces of the cherry, peach, plum neetarine, apricot, and many other kinds of trees seemed polished and of a color more resembling the new growth at the ends of branches than usual; the trees were in excellent health, and we were informed that they bore superior crops to those not so treated. Within the last few days we have applied the soda wash to our trees and for the purpose of ascertaining if so strong a solution would injure the tender parts of plants, have sprinkled it over the leaves of many tender shrubs, but as yet they are uninjured, while the inert parts of vegetables are readily decomposed by it.—*Working Farmer.*

Report of the Committee on Wheat.

Messrs Editors:—Being in company with a very interesting lady not long since, several gentlemen being along, she was so unkind as to charge me with turning every thing into ridicule, merely because I had attacked one or two queer things advanced by a friend of hers present, and, without a "broken" lance, laid him to the laud. Ridicule is a good lance, but it requires more sense to handle it, than I possess, and I do not think I ever touch it, though so charged by so intelligent a young lady. At all events I never intend to use it. But strive to use fair argument, yet I love a little humor, to prevent being tired of a dull story. I cannot bear ridicule, and hope I do not use it, however well it may be applied in certain cases.

Let us to that committee. It seems that Broomsedge has cornered that same committee somewhere. I do not know where, nor which one. But "rough at a venture"—as a friend of mine said when he thrust his hand into a hollow tree, where his dog had "treed," and got snake bit—I will to the rescue, of somebody. I reckon it is Broomsedge, as he now seems to be on my side. This clean culture—it will do very well for overseers who love to show a clean crop. But is it wise? Had we better not make less, and not keep fields quite so clean? I ask—suppose my corn be kept clean, well plowed, laid by when in bunch, or a little before, with a cow-pea every two inches over the ground and harrowed in—will there be less corn made?—will the land be injured?—what will be the result? "I pause for a reply." I have seen cultivation in all its phases, and I know I have seen more made with "grassy crops" than others did and no grass. Grass should not at any time be allowed to get so large as to injure, but I cannot see that it is such a pest as many affirm. Yet I do not wish to be considered as encouraging "mixed husbandry," by growing weeds, grass, and cotton or corn in the same field.

I am anxious to see some society, or several united, encourage an experiment that I heard an agriculturist hint at a few days since. It is to offer a large premium, one large enough to call out the energies of the best planters, to test the value of the cow pea as an ameliorator. His project is to plant ten acres in corn, and when the corn is about to be laid by, to sow down one peck of peas on the first acre, two on the second, and so on to ten pecks. When the peas begin to make vine, sow on them half bushel of plaster to one half of each acre.

The ensuing year plant cotton on said land, and carefully note each half acre. The next year sow with oats, again note the growth and as near the product as possible. Feed the oats off with hogs only, turning them off say first of August. The next year follow with cotton by some, corn by others, and again note. Here will be four years culture, two in corn or cotton with a crop every year. Is it feasible that a result may be arrived at which might pay thousands to our people. I believe it, and am willing to contribute a V or an X. And more, I will be a competitor, promising to give the worth of the pre-

mium to the Southern man who the agriculturists South will say has done most for his country—willing thus to help, not for the pay.

We need shade to our land. Look at the rich lands that our California adventurers have passed through en route—they say they never saw rich dense growth. Look at our black-berry patches—look at the old story with a new name—Guerneyism—I say old for I can show it broadly stated in agricultural papers that breathed but for a day and died of starvation. I have no objection to do as I am now doing. I have plowed under in my cotton field, too pretty fair crops of peas, and I yet have another coming on—the peas coming up, this 21st June, from last year's crop in my corn. I do not like grass, but really I love to see the peas—I can keep them down, having only eight acres of cotton and seven of corn per hand. And here I will have others upon me. Tread lightly gentle-folks, straws are easily "broken," but they sometimes hide a stump, and you might lock horns against a sawyer too high for your axle. I do cultivate 15 acres per hand, and do not overwork my slaves, I scorn such a thing. But I attend to my own field, and do not try to show pretty work. I was not born pretty, nor on a pretty day—I love pretty women, but keep me from what is called pretty work. I certainly can show land that has brought to the crib and sent to market, over twenty crops, and I submit the crop this, or any other year, to show how land can produce—and I am not averse to comparing it with the land around me. I say this not in boast, but that my readers may have some confidence—that I do not desire to deceive.

I will not promise to write, or not to write, again—but I do promise my friend Broomsedge to stand up to him, until he is able to repair his lance. Yours, truly.

STRAWES.

"Big"—never mind the balance. }
June 21st 1851. }

APPLE JAM.—The apples, which should be ripe and of the best eating sort, being pared and quartered, as for making apple jelly, are put into a pan with just water to cover them, and boiled until they can be reduced to a mush. Then for each pound of the pared apples, a pound of sifted sugar is added, being sprinkled over the boiling mixture. Agitate it well until reduced to a jam; then put it into pots.

The above is the most simple way of making it; but to have it of the best possible clearness, make a thick syrup with three pounds of sugar to each pint of water, and clarify it with an egg, as before directed. Then add one pint of this syrup for every three pounds of apples, and boil the jam to a proper thickness.

MOULDY BEANS may be restored and made fit for use, if not very bad, by rinsing well in hot water, and carefully drying. Mouldy corn or peas may be treated in the same way.

To have Green Beans, Peas and Corn in Winter.

A gentleman says that he saw in January, green peas as succulent, to all appearances, as they were when plucked from the vine five or six months before. the mode of preparing them is to pick, when of the proper size for eating, shell, and carefully dry in cloths in the shade. All care necessary is to prevent them from moulding, this done, they will be fine and sweet the following spring.—Beans may be preserved in the same way with perfect success.

Green corn may be preserved in the following manner: Pluck the ears of corn when fit for boiling, strip off the husks, and throw the ears into a kettle of boiling water; leave them in until the water boils over them, when they must be taken out; shell off the corn by running the prong of a fork along the base of the grain, holding the ear with one end against the breast—this is more expeditious, and saves all the grain, including the heart or germ, which is the sweetest part.

After being thus prepared, it must be spread out thin on cloths, in a shady, airy place to dry; it should be stirred every day until dried thoroughly. When cooked, it should be put in cold water and boiled an hour or more, the water to be pretty well boiled off. When the water is nearly off, a little milk added to it will improve the taste.—*Madison Tribune.*

BEANS may be preserved by packing them in alternate layers with salt in a stone jar. Before cooking, they must be well soaked. We have eaten them after Christmas at a gentleman's house in Anderson Village.—*Eds. Farmer and Planter.*

CRAB APPLE JAM.—Pare the crab apples when quite ripe. Put them into a stone jar, cover it well, and put it in a pan of boiling water for an hour and a half. Then prepare the syrup with two pounds of sugar in half a pint of water, for every pound of the apples. Clarify the syrup. Then put the apples into it, and boil the whole to a jam.—*Mag. Dom. Economy.*

BIG HEAD.—Having seen in the Farmer some worthless cures for the big head in horses, I will send you a cure for that disease which will cure 99 cases in the 100, without final blemish or injury to the appearance of the head of the animal.

Take of oil origan, 1 oz., spts. ammonia, 2 oz., spts. turpentine, 2 oz., olive oil, 1 oz., pulv. cantharides, 1 drachm: mixed. Apply the mixture twice a day upon the enlargement, well rubbed in with the hand or moderately heated with an iron.—*Exchange Paper.*

Monstrous Radish.

We publish the following monstrous account of a "monstrous radish" without vouching for its accuracy, however. But after all, it was "no great pumpkins" compared to Lewis Blackburn's turnip, that pushed down a fence enclosing a quarter of an acre of land—not having room enough inside to complete its growth. The turnip, it was said, was grown on the Etowah river in Georgia and expressly to be boiled in a still, described by a Kentuckian to Mr. B., which was so large that the sound of a hammer used by a workman in riveting on one side, could not be heard on the other.—*Eds. F. & P.*

"We were yesterday presented by Capt. Folsom with the most enormous radish that was perhaps ever raised, with a label attached, announcing that there were left a few more of the same sort.—This vegetable is about two feet long, exclusive of the tapering roots, and as large round as a bushel, with a stalk three feet high, and as thick as a sugar cane.—It weighs from forty to fifty pounds and is really astonishing. It was grown in Pleasant Valley, in almost pure sand and of course hadn't half a chance. What would it have been, all things being favorable! Just think of lifting up such a radish to take a bite off of it! The old states might as well "come down." Every day proves by some such monstrous vegetable as this, the unapproachable productiveness of California.—*San Francisco Herald.*

Strength of the Horse.

The strength of the horse when applied to draw loads, as well as when made the standard of comparison for determining the value of other powers, has been variously stated.

The relative strength of men and horses, depends of course upon the manner in which their strength is applied. Thus, the worst way of applying the strength of a horse is to make him carry a weight up a steep hill, while the organization of a man fits him very well for that kind of labor. And three men, climbing up a steep hill with 100 pounds each on his shoulders, will proceed faster than most horses with 300 pounds.

It is highly useful to load the back of a drawing horse to a certain extent; though this, on a slight consideration,

might be thought to augment unnecessarily the fatigue of the animal; but it must be recollected that the mass with which the horse is charged vertically is added in part to the effort which he makes in the direction of traction, and thus dispenses with the necessity of his inclining so much forward as he must otherwise do; and may, therefore, under this point of view, relieve the draught more than to compensate for the additional fatigue occasioned by the vertical pressure. Car men, and wagoners in general, are well aware of this, and are commonly very careful to dispose of the load in such a manner that the shafts shall throw a due proportion of the weight on the back of the shaft horse.

The best disposition of the traces during the time a horse is drawing is to be perpendicular to the position of the collar upon his breast and shoulders; when the horse stands at ease, this position of the traces is rather inclined upwards from the direction of the road; but when he leans forward to draw the load, the traces should then become nearly parallel to the plane over which the carriage is to be drawn; or if he be employed in drawing a sledge, or any other thing without wheels, the inclination of the traces to the road should be about 18½ degrees, when the friction is one-third of the pressure.

When a horse is made to move in a circular path, as is often practised in mills and other machines moved by horses, it will be necessary to give the greatest possible diameter that will comport with the locality and other conditions to which the motion must be subjected. It is obvious, indeed, that since a rectilinear motion is the most easy for the horse, the less the line in which he moves is curved, with a greater facility will he walk over it, and the less he need recline from a vertical position; and besides this, with equal velocity the centrifugal force will be less in the greatest circle, which will proportionally diminish the friction of the cylindrical parts of the trunions, and the labor of moving the machine. And further, the greater the diameter of the horse-walk, the nearer the cord of the circle in which the horse draws is to coincide with the tangent, which is the most advantageous position of the line of traction. On these accounts it is, that, although a horse may draw in a circular walk of 18 feet in diameter, yet, in general, it is advisable that the diameter of such walk should

not be less than 25 or 30 feet; and in many instances 40 feet would be preferable to either.—*Dictionary of Mechanics.*

Beef Tea.—Cut a pound of lean beef into thin slices, put it into three pints of cold water, set it over a gentle fire where it may become gradually warm, let it be well skimmed, cover the saucepan close, and boil gently for two hours; strain it and let it stand to settle, and then pour it off clean. One onion, a few peppercorns, and a little salt, may be added if required.

Recipe for making Beer.

To make the best beer in the world, take one pint of corn and boil it until it is a little soft, add to it one pint of molasses and one gallon of water—shake them well together, and set it by the fire; in twenty-four hours the beer will be excellent. When all the beer in the jug is used, just add more molasses and water. The same corn will answer for six months, the beer will be fit for use in twelve hours, by keeping the jug, which contains it, warm. In the absence of molasses, sugar or honey will answer in its place.—In this way, the whole ingredients used in a gallon not cost exceeding four cents, and is better and more wholesome than cider.—*Et.*

Blackberry Jam.

Though a common, wild, and generally despised fruit, the blackberry makes an excellent jam, the use of which is found very serviceable in disorders of the kidneys and bladder, besides being a very agreeable sweetmeat. Put into a stone jar, a quantity of blackberries not ripe, but of full size and of a rich red color. Cover the jar and place it in a kettle of water. Set this over the fire and make it boil. Let it so boil for six hours, supplying the water in the kettle lost by evaporation. At the expiration of that time, take it off the fire, put it in a preserving-pan, and to every pint of the mashed fruit, add a pint of water, and two pounds of lump sugar, clarified together as before directed. Set it on the fire and stir it about until of a proper consistence. Then put it into pots in the usual manner.—*Et.*

A FELON.—It is said that if the diseased finger be thrust into a small hog of living angle or fishing worms and kept there for some hours the fury of the sore will be cured. It could do no harm—except to the worms—to try it. A case is related to us of success with this remedy.

Corn-cob Meal.

As the question of the value of the cob in feeding, when ground with the corn, is again coming into consideration, perhaps the following extract from "Steward's Stable Economy" might go far to decide it, in the minds especially of those

who know that the cob is equal in quantity to the corn—the only consideration which is necessary in the present stage of the question: on some future occasion it may be shown that the cob itself is fully equal in quality to the same quantity of oats for this purpose.

"Condensed food is necessary for fast working horses; their food must be in less compass than that of the farm or cart horse, but to this condensation there are limits. Grain affords all, and more than all, the nutriment a horse is capable of consuming, even under the most extraordinary exertion; his stomach and bowels can hold more than they are able to digest; something more than nutriment is therefore wanted, for the bowels must suffer a moderate degree of distension, more than a wholesome allowance of grain can produce; they are very capacious; in the dead subject more than thirty gallons of water can be put into them; and it is thence evident they were not intended for food in a very condensed form, for it seems natural that they require a moderate degree of pressure or dilation to assist these functions, they must have something to act upon. Now, when hay is very dear and grain cheap, it is customary in many stables to give less than the usual allowance of hay and corn, but the alteration is sometimes carried too far, and is often made too suddenly: the horses may have as much as they will eat, yet it does not suffice without fodder, and, having no hay, they will leave the grain to eat the litter: a craving sensation seems to arise, and the horse endeavors to relieve it by eating straw. The sensation cannot be that of hunger, else the horse would eat his horn; but whilst he has plenty of grain and plenty of litter, the diminished allowance of hay is borne with impunity. But when a sufficiency is not to be obtained in any shape, the horse loses appetite and becomes emaciated; his bowels are confined, his flank is tucked up, and his belly almost disappears; in general he drinks little water, and when he takes much he is apt to purge. His belly is often rambling, the bowels apparently containing a large quantity of air, which occasionally produces colicky pains—These horses are very liable to crib-biting and wind-sucking, and it is certain that these diseases are very rare amongst those that live on bulky food.

When the ordinary fodder is very dear, its place must therefore be supplied by some other which will produce a wholesome distension of the stomach, although it may not yield so much nutriment. Straw, roots, either or both, may be used in such cases. The tucked up flank, and the horses repeated efforts to eat his litter, show that his food is not of sufficient bulk to sustain nature in her operations. And when work demands the use of condensed food in a horse that has been accustomed for some time to bulkier articles, the change must be made gradually and with the greatest caution; remembering, that coming from grass or the straw-yard, the horse, for a time, requires more fodder than would

be proper or necessary to allow him at his work, after a season."

Now, it would appear that the cob, ground with corn, would be just the proper quantity of fodder for mixing with the corn, the condensed food, for almost all purposes; and nothing, surely, can be mingled with it more readily and conveniently, or so profitably as the cob, which, at the same time, saves the expense of shelling. When, therefore, the philosophy of arrangement comes better to be understood, we may expect that to grind the cob with the corn will be the general practice for the feeding of stock of all descriptions.—*Farmer's Gazette.*

From the Farmer's Register.

Value of field Peas—to prevent injury to Stock feeding thereon.

MR. EDITOR:—I have for several years placed a high value on the pea crop, as peculiarly adapted to our agriculture and wants in this section. It appears to me more fertilizing than any green crop we grow, grows taller on poor land, is easily planted, does not hinder us much during the busy season, and in every way, is a fine accompaniment to a corn crop, and furnishes a fine amount of fall and winter provender for stock, which we are generally much wanting; but I have heretofore thought it left my stock, particularly my hogs, in an unhealthy condition, and on that account less valuable than it at first promised.

I have used much inquiry and thought to find a remedy for this defect, and hope I have succeeded; but it will be necessary to test the remedy more fully, and on that account, I send it to you, if you think it worthy, for the use of your subscribers.

Last fall I was conversing on the subject with a very honest practical farmer. He told me that for a number of years he had used the pea crop in fattening the most of his stock, that they thrived as kindly on that as corn, and that none were injured by it; and he gave me his plan. He prepared in the field a large tight trough, and kept it all times well supplied with salt and ashes, dissolved in water. He never turned hungry stock into the field, only turning in his horses, cows and fattening hogs. I tried it last season, and the result was precisely as he informed me; they all appeared fond of drinking out of the trough, and were healthy, and did well after they were turned off on other food. I used the precaution to turn my horses and cows off one or two days each week, and I would suggest that horses or oxen should never be put to hard work while filled with peas. Nor would I suffer my stock hogs to feed on them; they are I think more unhealthy for young than older hogs.

Hancock Co., Ga. I. S. WHITTEN.

AMMONIA is regarded by Dr. Hayes as being a poison to plants, though he attaches great value to it as a neutralizing agent to the acids of soils, and as serving to convey other ingredients, such as carbonic acid and the acids of soils, into the circulation of plants.

EDITORIAL TABLE.

REMISSENESS—In some unaccountable way the communication of Mr. Rolling has been misplaced and cannot be found. We hope to lay hands on it in time for our next. In the meantime we ask of him a little lenity for our awkwardness.

GEORGETOWN REPUBLICAN—This journal, formerly a weekly visitor, now comes three times a week, and we are much pleased that it is disposed to cherish in so agreeable a manner the social relations. Onward is the watch-word of the times and the Republican has caught the inspiration.

DE BOW'S REVIEW—This periodical possesses as much sterling merit as any similar one published in the United States. It is an honor to the south, as well as its conductor, and deserves a liberal support. In the June number are to be found articles of peculiar merit, such as the management of negroes upon Southern estates; Texas; Climate, Rivers, Lands; Plank Roads, and other matters of immediate interest to the agriculturist. It is published, Exchange Place, New Orleans, at \$5 per annum.

SOUTHERN PLANTER—The July number of this paper is upon our table, and now appears under the conduct of F. G. Ruffin Esq., as editor. The debut of this gentleman is highly creditable. The salutory is a chaste and sensible paper, and deserves further commendation but we have not now the time to do it justice.—To Mr. Ruffin we cordially extend the right hand of fellowship.

TOMATOES—A year ago we published over the signature, SENEX, a recipe for preparing this most excellent vegetable so as to have it from one summer to another. It is full time for new Tomatoes, and we have them and those put up according to the directions given twelve months since in abundance upon the table at the same time. All equally fresh or nearly so. The Tomatoes should be gathered when ripe, boiling water poured over them and allowed to remain until they can be peeled, then the water poured off, the fruit skinned, mashed into a pulp, put into strong bottles and corked tightly, and the corks tied in with a strong string. The bottles should then be put in a vessel of water and the water kept at a boiling temperature four or five hours. That the air may be effectually and permanently excluded when cool enough to handle, immerse the mouths in melted pitch. Thus prepared they may be set away and

used at pleasure. We have had occasion to see this verified through the compliments of Mr. J. L. SHANKLIN, who recently presented us with a sample of what he now has on hand from last year's storage.

GUINEA CORN—Dr. R. E. ELLIOTT, of Savannah, Georgia, has placed us under obligation to him by depositing in our office a parcel of this species of grain.—We have distributed a part of it among the subscribers of the Farmer and Planter, and planted the remainder in our field and hope for all parties a bountiful yield.

We had some experience with it some years ago and found it to make a large yield. The grain is good for stock, poultry, &c., and the stalk makes tolerably good fodder and a great quantity of it.—The grain sown broad-cast is an excellent renovator of worn out lands, and is inferior to scarcely any thing for this purpose except the Cow pea.

To Prevent a Cow Sucking Herself.

A friend informed us not long since that he at one time owned a cow that was in the habit of sucking herself, and a negro of his had deprived her of the pleasure, most effectually, by splitting her tongue about two inches. He could not say whether it was an experiment of the negro, or from information derived from others. Be this as it may, there was philosophy in the idea that first suggested the operation—for with a split tongue no vacuum could be formed around the teat, and consequently nothing could be drawn by suction.

The gentleman informs us that the splitting does not in any degree prevent the animal from taking her customary food.

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WHITMAN'S AGRICULTURAL WAREHOUSE, BALTIMORE, MD.

THE UNPRECEDENTED and INCREASING INTEREST manifested in AGRICULTURE, and the liberal encouragement which has been given the subscriber, has induced him to engage in the MANUFACTURING business on an EXTENSIVE SCALE. His Factory and Warehouse is now the largest in Baltimore, and probably the most extensive in this country.

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January 1, 1851.

PROSPECTUS

OF THE

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A New Paper, for the Fireside, the Parlor, and the Leisure Moment. To be published in Columbia, S. C., on the first of November next, by

E. A. GORDMAN.

Late Editor of the Laurensville, S. C., "Herald,"
Author of "The Slaver," "Forward and Aft," "The Ocean Born," &c. &c.

Nor from the lack of Newspapers in the Palmetto-State, nor from their want of ability—for we feel proud to know that the Press of South Carolina will compare favorably with that of any State in the Union—are we induced to anticipate the success of the **ILLUSTRATED FAMILY FRIEND**.

But, whilst cheerfully acknowledging the marked and unmistakable talent displayed in the management of our contemporaries, and cordially wishing them a full support and generous patronage, we yet think there is an ample field, now unoccupied, for the growth and expansion of the paper which it will be our endeavor to make, not only nominally the Family Friend, but really and sincerely the Friend—real, loyal and true—of every family in the State.

The fierce and fiery discussion of party politics, the useful but dry records of commerce and traffic, as leading features, we will leave for the pens now so active and eloquent in their service; and whilst we will give to both subjects, as much space as will be desirable to the general reader, our great object and principal aim will be, the evolution, elucidation and exaltation, of the Pure, the Beautiful, the Useful and Instructive, in the paths of Morality, Virtue, Literature, Science, Art and Agriculture.

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These are brief, very brief hints, at the intentions and purposes of the **ILLUSTRATED FAMILY FRIEND**—the narrow limits of a Prospectus will not permit us to make them more full; but scant as they are, we hope they are ample enough, to convince every candid and intelligent person, that though we intend not to boast, we design publishing a paper that will be worthy of a liberal support.

TERMS:

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A. M. BENSON.

Commission Merchant.

Hamburg, S. C., July, 1851. 7-1f

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A. M. BENSON.

Hamburg, July, 1851.

7-R.

PROSPECTUS

OF THE

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A MONTHLY JOURNAL,

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AND ESPECIALLY ADAPTED TO ITS CLIMATE, PRODUCTIONS AND WANTS.

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SEABORN & GILMAN,
Editors and Proprietors.